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Humor style similarity and difference in friendship dyads

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ABSTRACT

This study assessed the concurrent and prospective (fall to spring) associations between four different humor styles to assess the degree to which stable friendships are characterized by similarity, and to assess whether best friends' humor styles influence each other's later use of humor. Participants were aged 11–13 years, with 87 stable, reciprocal best friend dyads. Self-report assessments of humor styles were completed on both occasions. Results indicated that there was no initial similarity in dyads' levels of humor. However, dyads' use of humor that enhances interpersonal relationships (Affiliative humor) became positively correlated by spring. Additionally, young people's use of this humor style was positively associated with their best friend's later use of the same. No such effects were present for humor which was aggressive, denigrating toward the self, or used to enhance the self. These results have clear implications for theories of humor style development, highlighting an important role for Affiliative humor within stable friendship dyads.

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There is a sizeable body of work relating to children and young people's sense of humor. We now have an understanding of cognitive variables which influence production and understanding of humor for these groups, and we have a sense of how important humor is with regards to both social acceptance and psychological wellbeing (see [Semrud-Clikeman & Glass, 2010](#); for a review). However, while it is possible to chart the psycho-social development and increasing sophistication of humor use across childhood and adolescence, we are much less clear about the extent to which humor is shared within friendships and whether friends' humor styles converge or diverge over time. Using a short-term prospective design, the current study set out to address these issues. First, by investigating whether best friend dyads are characterised by a shared sense of humor and whether humor becomes increasingly shared by stable best friend dyad members from fall to spring. Second, by investigating whether young people's humor styles are prospectively predicted by their best friend's humor styles. In these ways, congruence and change in young people's humor styles can be charted and the present study is the first to do so with respect to humor use.

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Humor and early adolescence

Recent personality driven approaches to humor have proposed that there are four dimensions reflecting the use of humor in everyday life (Fox, Dean, & Lyford, 2013; Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003). Self-enhancing humor is used to enhance the self, but is not detrimental to others (e.g. 'My humorous outlook on life keeps me from getting too upset or depressed about things'). Aggressive humor also enhances the self, at least in the short-term, but is done at the expense of others (e.g. 'If someone makes a mistake I often tease them about it'). Over the longer-term, this style is believed to be detrimental to the self because it tends to alienate others (Martin, 2007). Affiliative humor enhances one's relationships with others and reduces interpersonal tensions (e.g. 'I enjoy making people laugh'). Self-defeating humor also enhances one's relationships with others, but at the expense of the self (e.g. 'I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders and faults'). Over the long term, this is viewed as damaging for the individual since it involves denigrating the self and repressing one's own emotional needs (Martin, 2007).

Questionnaire-based twin-studies investigating phenotypic correlations indicate that 14–25% of the variance in adults' humor styles is genetically determined (Veselka, Schermer, Martin, & Vernon, 2010). This is a substantial portion, but it also indicates that there is a great deal of variance still to be accounted for and we theorize that early adolescence is a time when there are important social and interpersonal drivers for change. Interpersonal attraction is one such driver, and social psychological approaches to the study of humor emphasise its role in interpersonal attraction (Martin, 2007). Among adults, men have a tendency to prefer women who appreciate their sense of humor, women prefer men who are humorous (Bressler, Martin, & Balshine, 2006; McGee & Shevlin, 2009) and married/cohabiting couples tend to resemble each other in their sense of humor (Barelds & Barelds-Dijkstra, 2010). Among adolescents, humor ranks among the most preferred characteristics in an ideal partner; on the other hand, humor did not show assortment among heterosexual youth couples, meaning, youth couples did not become a couple because of a similar level of humor (Weber & Ruch, 2012).

Thus, as children enter adolescence, there may be clear interpersonal motivations for them to be, and be seen to be, humorous. Indeed, there is a step-change in the importance of humor between grades 6 and 8 (approximately 11–13 years old age range) during which time humor becomes significantly more important in determining young people's perceptions of their peers (Quatman, Sokolik, & Smith, 2000) and when the intensity of friendships suddenly increases (Berndt, 1982). This step-change may be linked to the emergence of dating, though it is also true that during this period the peer group in general becomes more important in the lives of young people (Bukowski, Hoza, & Boivin, 1993; Collins, 2003). In this context, adolescent boys with a good sense of humor tend to wield social power (Way, 2013). Furthermore, sociability-leadership reputations and sensitive-isolated reputations are correlated with both the production and comprehension of humor among 10–14 year olds (Masten, 1986). Since both production and comprehension of humor are linked to reputations, it is important to identify contexts which facilitate the development of these. Friendship dyads may afford young people a safe and secure context within which to observe and learn socially effective and successful humor styles, styles which can be observed to be more or less successful for different age-appropriate goals.

We therefore propose that early adolescence is a period when young people may be motivated to monitor and modify their humor styles. One social dynamic through which this might be achieved and observed is best-friend dyads.

Dyadic friendships

Friendships represent important relationship contexts for young people's development (Berndt, 1996; Bukowski, Newcomb, & Hartup, 1998) and most young people have mutual friends (Hartup & Stevens, 1999). An important element of friendship is the similarity of those involved (Rubin, Lynch, Coplan, Rose-Krasnor, & Booth, 1994) with the underlying assumption that 'birds of a feather flock together', what is known as the homophily hypothesis (Kandel, 1978). Homophily theory proposes that both the formation and maintenance of friendships is based upon similarity in appearance and behaviour (Aboud & Mendelson, 1996). This unfolds in part because children and young people choose friends who are like them, and in part because they leave friendships where important differences exist (i.e., selection and de-selection effects: Van Zalk, Kerr, Branje, Stattin, & Meeus, 2010). Additionally, similarity may also be a function of friends influencing one another's characteristics and behaviours so that they converge over time (Berndt, 1982; Van Zalk et al., 2010). Degree of personality similarity enhances adolescents' friendship quality (Linden-Andersen, Markiewicz, & Doyle, 2009) supporting the contention that homophily has a positive bearing on how well young people interact. However, it is important to keep in mind that similarity can also occur with respect to negative characteristics and behaviours, with homophily evidenced in adolescent dyad pairs on measures of depression and anxiety (Gros, Milanak, & Hershenberg, 2013; Stone et al., 2013; Van Zalk et al., 2010), alcohol consumption (Cheadle, Stevens, Williams, & Goosby, 2013), attitudes toward bullying (Pozzoli & Gini, 2013), delinquency (Selfhout, Branje, & Meeus, 2008), and the tendency to attribute hostile intent to others (Halligan & Philips, 2010).

An alternative position is also possible, where complementarity is instead the driving force behind dyadic members' humor styles. Complementarity is the proposition that there are specific characteristics within successful relationships which complement each other so that characteristics are opposites and work well together for that very reason (Dryer & Horowitz, 1997). From this perspective, it may be that a young person who has high levels of aggressive humor, for example, will prefer partners who have low levels of that humor style. This embodies an 'opposites attract' position. Given the lack of evidence available in relation to humor it is also possible that there is no relationship at all.

That these analyses have not been conducted with regards to adolescent humor use is surprising because humor is so often considered to be an important element of friendships. Amongst adults, a shared sense of humor within a friendship dyad significantly increases both the emotional closeness of the dyad and their altruism as directed to one another (Curry & Dunbar, 2013). However, the extent to which young people's friendship dyads are similar in terms of their humor styles, and become more similar over time, has not been evaluated. This is therefore the first aim of the present study and will be investigated by looking at correlations between dyad members' humor styles and the degree to which those correlations change over time.

As well as examining similarity within best friend dyads, it is also important to begin charting whether humor styles used by a valued peer (i.e., a best friend) can influence the later development of a young person's own humor style. Social learning theory presupposes that people form their thoughts and behaviours through the observation of others (Bandura, 1977) and has been shown to be an important driver of behaviours within sibling dyads (Whiteman, Jensen, & Maggs, 2014). Furthermore, social learning processes have been proposed to underlie the unique effect, over and above family and romantic partner effects, of friendships upon delinquent behaviour (Lonardo, Giordano, Longmore, & Manning, 2009). In the current study, we focus on the modelling of specific behaviours (humor styles) within dyadic friendships as possible drivers of humor style development. The present study sets out to address this issue using a prospective research design, drawing upon the Actor-Partner Interdependence Model (APIM: Cook & Kenny, 2005). APIM allows us to explicitly model the extent to which one member of a best friend dyad is influenced by their partner over time while taking into consideration the association between dyad members' humor styles at each time point as well as the stability in members' humor style.

The present study

In summary, this is an exploratory study with two primary aims. The first aim is to examine the degree to which adolescent best friends exhibit similarity with reference to their humor styles. This will be examined at two time points in order to see whether similarities or differences are stable across the fall to spring period. The second aim involves examination of the degree to which young people's humor style is influenced by the humor styles of their best friends. This will be examined using a cross-lagged APIM model to investigate the influence of best friends' humor styles while controlling for stability in humor across time and associations between humor styles within time points.

Method

Participants

Participants were drawn from 1234 young people who were taking part in a larger study. This initial sample were aged 11–13 years (school years 7 and 8; 680 aged 11–12 years, and 554 aged 12–13 years), from six state secondary schools in the Midlands, UK. Of this group, 599 participants were male and 620 female (with missing data for 15 participants). The mean age of the sample at Time 1 was 11.68 years ($SD = .64$). The ethnic composition of each school (1132 identified as white, 102 identified with an ethnicity other than white, and 17 did not respond to this item) was a reflection of the region in which the research was located.

Of the initial 1234 participants, we identified 443 best friend dyads, that is, 886 young people with reciprocal best friends at T1 (see "Best friend selection" below). Of these, 174 again identified the same reciprocal best friend at T2 (87 dyads). These participants were almost exactly the same age (11–13 years old, $mean = 11.71$; $SD = .66$). All but two of these final dyads were same-sex pairs: 27 dyads were male, 58 were female, and two were mixed sex. A 2*2 chi-square test with gender (male, female) and sample (in final sample, not in final sample) was significant, $\chi^2(1) = 23.35$, $p < .001$, $\phi = -.14$, indicating that participants were more likely to be in the final sub-sample if they were female (9.3% of boys and 19.0% of girls). One hundred and sixty eight of the final sample reported their ethnicity as white, four identified as other than white, and two did not respond to this item. A 2*2 chi-square test with ethnicity (white, not white) and sample (in final sample, not in final sample) was significant, $\chi^2(1) = 9.30$, $p < .001$, $\phi = .09$, indicating that participants were more likely to be up in the final sub-sample if they identified as white (14.8% of those identifying as white and 4.0% of those identifying as other than white).

Parents or carers of all young people in the relevant year group at each school were invited to allow their child to participate, using the opt-out method of consent. Young people who did not participate in the first session of data collection at Time 1 were not permitted to take part in the second session of data collection at Time 2. Across the time points of the study, the participation rate ranged from 70% to 85% of eligible young people registered in the schools.

Participant recruitment and data collection were conducted during school hours. Participants assented to take part in the study during class time. Classes varied in size from 10 to 31 with a modal class size of 24 young people. Participants who were not taking part were given an alternative activity to complete by the researcher or class teacher. The data were collected as part of a larger study primarily on the topic of bullying.

Measures

Answer booklets were completed at each session. Young people were asked to record their name, age, school class, gender and ethnicity, prior to completion of the measures pertinent to that session.

Humor styles. Participants completed the self-report child Humor Styles Questionnaire (child HSQ; Fox et al., 2013), which is an adapted version of the adult HSQ (Martin et al., 2003). Using a 4-point response scale (1 = *strongly disagree* to 4 = *strongly agree*), participants rated their agreement with the 24 statements. There are six items per sub-scale with four sub-scales in total: Self-Defeating, Aggressive, Affiliative and Self-Enhancing. Verbatim examples of items were presented earlier. When completed by 11–16 year olds, Fox et al. report acceptable levels of internal consistency for all four sub-scales (all Cronbach's $\alpha > .70$), and confirmatory factor analysis supported a four-factor structure. The child HSQ also has acceptable levels of test re-test reliability (r s range from .65 to .75 across one week). For the present study, reliability coefficients were all above .70, apart from aggressive humor at Time 1 (Time 1: $\alpha_{\text{aggressive}} = .66$; $\alpha_{\text{self-defeating}} = .73$; $\alpha_{\text{self-enhancing}} = .75$, $\alpha_{\text{affiliative}} = .85$; Time 2: $\alpha_{\text{aggressive}} = .71$; $\alpha_{\text{self-defeating}} = .81$; $\alpha_{\text{self-enhancing}} = .82$, $\alpha_{\text{affiliative}} = .88$). Mean scores were calculated for each sub-scale.

Best friend selection. Using a list of all participating pupils in their classroom, all young people were asked to place a tick beside those who they felt were their "best friends". From that list, they were then asked to say who they were closest to and it is from this data that we identified reciprocal best friends i.e. those pairs of young people who both chose each other as the best friend that they were closest to.

Procedure

Prior to data collection, the study was approved by the University Ethics Committee at the second author's institution. Data collection took place in the Fall (Time 1) and Spring (Time 2) terms of the school year, in school classrooms, with a class teacher present. Time 1 and Time 2 were approximately six months apart.

Each data collection session took approximately half an hour. Session 1 at each time point comprised the self-report child HSQ, whilst Session 2 involved measures not relevant here. Sessions began by the researchers introducing themselves and explaining the measures that would be collected that day, and explaining the confidential nature of the questionnaires. Participants were asked to complete the questionnaire booklets in silence; they were asked to keep their answers private and not look at what other children were doing. Where necessary, Teaching Assistants were provided with a copy of the questionnaire to assist those with reading difficulties.

Following data collection, all young people were thanked and debriefed about the measures' purposes. They were encouraged to refrain from discussing their answers with other young people. After the final session of data collection, participants were fully debriefed as to the aims and purpose of the study. All participants were provided with details of a confidential child help-line and directed toward other sources of support (e.g. parents/carers and teachers). Schools were compensated with £100 of Amazon vouchers, at each time point, to reflect our appreciation for their effort and participation.

Results

Across all analyses presented below, we have adjusted the significance level to correct for multiple testing. To achieve this, we have moved from 95% to 99% ($p < .01$ rather than $p < .05$). Means and standard deviations for all four humor styles at both time points are reported in Table 1. A two-way repeated-measures ANOVA examining whether there were differences on the mean levels of self-reported humor styles at Time 1 and at Time 2 indicated that there was a large, significant effect of humor style, $F(3,396) = 265.72$, $p < .001$, $n^2_p = .668$, though no effect of Time $F(1,132) = .000$, $p = .987$, $n^2_p = .000$ and no interaction, $F(3,396) = 3.62$, $p = .013$, $n^2_p = .027$. Pairwise comparisons indicated that all four humor styles differed significantly from each other (all $p < .01$) so that most-to-least reported were: Affiliative, Self-enhancing, Aggressive, Self-defeating.

Aim 1: Do reciprocal best friends share humor styles? Do they become more similar in terms of humor style over time?

The first area of interest concerned the degree to which the dyads in our sample shared humor styles within each time point and whether any associations changed from Time 1 to Time 2. Table 2 displays the bivariate correlations between each dyad's members' humor style scores. There were significant effects for Affiliative humor only, indicating that dyads' levels of

Table 1
Descriptive statistics for all dyad members at time 1 and time 2.

Humor style	Time 1		Time 2	
	Mean (SD)	Range	Mean (SD)	Range
Affiliative ^a	3.03 (.50)	1.00–4.00	3.08 (.50)	1.33–4.00
Self-defeating ^b	1.93 (.50)	1.00–3.50	1.88 (.57)	1.00–3.33
Self-enhancing ^c	2.69 (.49)	1.33–3.83	2.58 (.67)	1.00–4.00
Aggressive ^d	1.98 (.42)	1.00–3.00	2.10 (.49)	1.00–3.33

^a $n = 174$ at T1 and 163 at T2.

^b $n = 168$ at T1 and 161 at T2.

^c $n = 170$ at T1 and 159 at T2.

^d $n = 170$ at T1 and 163 at T2.

this humor style were positively correlated at T2. Using syntax which compares correlated but non-overlapping correlations (Weaver & Wuensch, 2013), we were able to test whether Time 1 and Time 2 correlations for each humor style were significantly different. This was significant only for Affiliative humor, which became significantly stronger from T1 to T2.

Aim 2: Do reciprocal best friends' humor styles influence each other?

The Actor-Partner Independence Model (APIM: Cook & Kenny, 2005) allows researchers to model dyadic relationships between variables and, importantly here, whether members of a dyad influence each other over time (Cook & Kenny, 2005; Sadler & Woody, 2008). In the model, one member of the dyad is the Actor and one is the Partner. For some dyads, these are distinguishable (e.g., in husband and wife dyads) whereas in other dyads the two members are indistinguishable (e.g., identical twins). In the current study, dyads were indistinguishable since analyses involved two individuals who simply selected the other as their 'best friend'. This analysis was used to examine whether one young person's humor use at Time 1 influenced their best friend's humor use at Time 2.

In bivariate analyses, age was significantly correlated with three of the four humor styles ($r_{\text{affiliative}} = .07, p = .410, n = 163$; $r_{\text{aggressive}} = .25, p = .001, n = 163$; $r_{\text{self-defeating}} = .21, p = .007, n = 161$; $r_{\text{self-enhancing}} = .25, p = .002, n = 159$) and so its effects were controlled for in each model (see below). Independent *t*-tests were conducted to examine whether gender had an effect on the four humor styles, but it did not: $t_{\text{affiliative}} (159) = -1.35, p = .178$; $t_{\text{aggressive}} (159) = -1.86, p = .065$; $t_{\text{self-defeating}} (157) = -.46, p = .650$; $t_{\text{self-enhancing}} (155) = -.00, p = 1.00$. Gender was not therefore included in the model.

The APIM model for Aggressive Humor is shown in Fig. 1. The APIM models for the other three humor styles were identical, except for the substitution of the relevant humor style (e.g. 'Self-defeating' instead of 'Aggressive'). In the model, Actor effects (labelled 'STABILITY') reflect the stability of each form of humor over time. Partner effects (labelled 'PARTNER') reflect the extent to which each young person's humor style is influenced by their best friend's humor styles (Cook & Kenny, 2005). Age was controlled for by including it as an independent variable, with Actor effects only (i.e., Participant A's age predicted their T2 Humor scale scores, Participant B's age predicted their T2 Humor scale scores). The model was tested using AMOS 21, and included restraints specific to an APIM model with indistinguishable dyads, viz. both Actor effects are constrained to be the same and both Partner effects are also constrained to be the same. This is because the dyad members are interchangeable, hence the stability of Participant 1's humor is assumed to be the same the stability of Participant 2's humor (i.e. Actor effects) and likewise the effect of Participant 1 on Participant 2 is assumed to be the same as the effect of Participant 2 on Participant 1 (i.e. Partner effects). In this way, Partner effects are estimated while controlling for Actor effects and vice-versa. In addition, the humor styles at T1 were allowed to covary as were the ages of the dyad members and the error terms associated with humor at T2.

Fit of the models was excellent across three of the four humor styles, but was somewhat weaker for Self-Defeating humor (see Table 3). The results of the analyses are reported in Table 4. These indicate that all four humor styles display moderate to strong stability ($\beta = .35^{***}$ to $.66^{***}$) across the period in question. Only one partner effect was significant: Affiliative humor at T1 was positively associated with partner's Affiliative humor at T2. Age had a significant effect upon Aggressive Humor ($\beta = .27^{***}$), but not Self-Enhancing ($\beta = .16$), Self-Defeating ($\beta = .04$), or Affiliative Humor ($\beta = -.09$).

Discussion

This study investigated the extent to which humor is shared by young people who are reciprocal best friends, whether any similarities are invariant over time, and whether the humor styles used by each member of a best friend dyad influence the other member's later reported humor use. The results provide some insight into the development of these competencies, indicating that there may be very specific ways in which similarity is evidenced in best friend dyads. In addition, the results point toward specific ways in which young people's own use of humor influence their best friend's later use of humor.

The first part of this investigation considered whether stable best friend dyads shared a humor style and whether those dyads' humor styles became more or less similar across time. Our results indicate that the young people in our sample did not share humor styles at the beginning of our study but, by the end, levels of Affiliative humor styles were positively related. In contrast, none of the other three humor styles displayed significant correlations within dyads at either time point. Martin (2007) proposes that the core benefits of affiliative humor are enhancing relationships and reducing interpersonal tension. These relationship outcomes may therefore be particularly reinforcing in terms of shaping young people's own future behaviour. Such explanation gains traction when considering the results of our APIM analyses, which showed that use of an

Table 2

Humor style bivariate correlations within dyads at T1 and T2, showing z-test comparisons of possible differences between those correlations.

Humor style	T1	T2	Difference between T1 & T2
Aggressive (n = 72 dyads)	.10	.06	$z = .24, p = .810$
Affiliative (n = 80 dyads)	.22	.51***	$z = -2.67, p = .008$
Self-defeating (n = 70 dyads)	-.14	.11	$z = -1.73, p = .084$
Self-enhancing (n = 70 dyads)	.22	.21	$z = .06, p = .955$

*** $p < .001$.

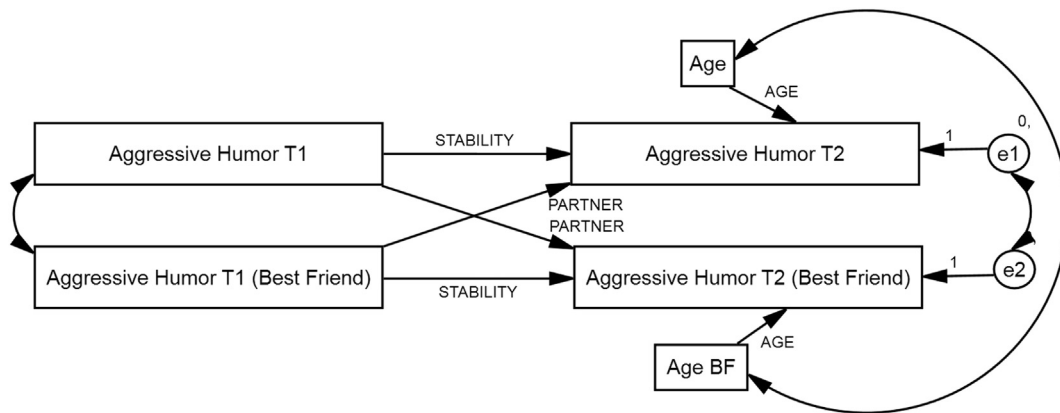


Fig. 1. APIM model for aggressive humor. Paths sharing names ("STABILITY", "PARTNER", and "AGE") were constrained to be equal to reflect the indistinguishable nature of the dyads.

Table 3
Fit indices for humor APIM models.^a

Model	CMIN/DF	CFI	RMSEA (90%CI)
Aggressive humor	.85	1.00	.000 (.000, .108)
Affiliative humor	.54	1.00	.000 (.000, .068)
Self-defeating humor	1.67	.94	.088 (.000, .164)
Self-enhancing humor	.87	1.00	.000 (.000, .110)

^a n = 87.

Table 4
Prospective actor and partner effects.^a

Effect	Standardised Beta
T1 self-defeating humor → T2 Self-defeating humor (Actor)	.53***
T1 self-defeating humor → T2 Self-defeating humor (Partner)	.13
T1 aggressive humor → T2 aggressive humor (Actor)	.35***
T1 aggressive humor → T2 aggressive humor (Partner)	-.03
T1 self-enhancing humor → T2 self-enhancing humor (Actor)	.58***
T1 self-enhancing humor → T2 Self-enhancing humor (Partner)	-.01
T1 affiliative humor → T2 affiliative humor (Actor)	.66***
T1 affiliative humor → T2 affiliative humor (Partner)	.18**

** $p < .01$, *** $p < .001$.

^a n = 87.

Affiliative humor style is associated with increases in the later use of Affiliative humor for stable best-friend dyads. Research with adults indicates that positive humor styles are socially desirable (Cann & Matson, 2014) and the findings we have presented here suggest that this may be especially true of affiliative humor for young people.

The question arises of why the trends described above are not replicated for the remaining three humor styles. It may be that young people de-select those friends who display Aggressive or Self-defeating humor: we focussed on young people who had stable, reciprocal best friends, so dyads where de-selection occurred would not have been included in our analytic sample. Van Zalk et al.'s (2010) results, indicating that young people with high levels of depressive symptomatology are de-selected more often (and de-select other more often), is at least partially consistent with such an explanation since self-defeating humor is positively associated with depression (Dyck & Holtzman, 2013; Kuiper, Grimshaw, Leite, & Kirsh, 2004; Martin et al., 2003; Tucker et al., 2013). It is also possible that the observed null-effects occurred because effects take longer than six months to develop. Further data is required to discover whether that is indeed the case, or whether best-friend dyads simply do not converge on these remaining humor styles.

Another explanation for our null effects that is worthy of consideration is that the move toward similarity, or the influencing of one member by the other, happens quickly and in the early stages of a friendship. Since we did not control for friendship length it is not possible to be certain of whether there is truth in such an assertion, but our data do offer some indication that it may be unfounded. Specifically, we found no significant associations between dyad members' humor styles at the first data collection point: If influence operated, and similarity emerged, early on in friendships then we could have expected to do so. The fact that we did not find such associations suggests that either those processes do not take place quickly

or that our sample was predominantly made up of dyads who had only very recently become friends (and hence the processes had not yet taken place). Unfortunately, we did not control for length of friendship so cannot definitively rule out this latter possibility.

Future directions

Affiliative humor appears to play an important role in the lives of best-friend dyads. These dyads may therefore present a context within which [Martin's \(2007\)](#) proposal, that affiliative humor enhances relationships and reduces interpersonal tension, could be tested and investigated. For example, it may be that friendship quality is higher when Affiliative humor is extensively shared by dyad members. Conversely, it may be that dyads who share little Affiliative humor there is greater instability (i.e., more de-selection) over time.

Should the role of Affiliative humor in maintaining or improving best friendships be supported by future studies, it would then be of interest to examine whether that style can be taught or encouraged amongst young people. Evidence from studies with adults indicates that interventions are now beginning to successfully increase sense of humor ([Ruch & McGhee, 2014](#)) though it is at present unclear the extent to which specific forms of humor can be developed and whether such interventions are appropriate to populations of children and young people. If it is possible to encourage the development of positive humor styles this may be an important additional strength for social skills interventions.

One final important future direction is to investigate differences across male–male, female–female, and female–male dyads. Adolescent boys use humor for more aggressive purposes than girls, while girls use humor to cheer each other up more ([Führ, 2002](#)). Thus, male dyads may share aggressive humor styles more than female dyads and female dyads may share affiliative humor styles more than male dyads. These hypotheses could not be considered in the current study due to sample size.

Limitations

This exploratory study has evaluated change in young people's humor style use across a six month period. However, such a time span may not be sufficient to observe changes of the nature we were looking for. Equally, it may be the case that changes happen quickly after friendship formation as new friends seek to cement a friendship: we were unable to control for this possibility as we did not assess how long the young people in this study had been friends for. This is an important consideration for future studies.

Our study also relied upon self-reports, and such studies are often criticised for the possibility that parameter estimates will be inflated due to shared method variance. However, shared method variance does not necessarily lead to inflated estimates ([Conway & Lance, 2010](#)), and the way in which we treated this data (dyadically rather than at the individual level) is likely to greatly reduce this problem since we were, at least, looking for relationships between different participants' reports rather than looking for correlations within subjects.

Finally, we note that our results are restricted to the analysis of best friend dyads who were both members of the same class. [Van Zalk et al. \(2010\)](#) found that patterns of selection, de-selection, and influence occurred regardless of whether friendships were exclusively in-school, both in-school and out-of-school, or exclusively out-of-school. However, it was also true that selection and influence had the largest effects for friendships which were exclusively out-of-school. Examining the context of friendships in future research may therefore reveal important subtleties.

Conclusions

This research represents a novel evaluation of development in young people's use of humor in early adolescence. As the first study of its kind, it presents a new way of examining how humor develops. Our results suggest that there are interesting ways in which young people share humor styles within stable best friend dyads, and suggest that Affiliative humor may have particularly important functions to play in early adolescence. Unpicking the reasons underlying the changes we have reported will enhance our understanding of developmental processes relating to humor development.

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